

### *ABSTRACT OF THE DISCLOSURE*

The invention relates to a radio communication apparatus of a base station or a mobile station in a mobile communication system. A radio communication apparatus of the invention has: a channel quality monitoring section for monitoring channel quality of each arriving wave received in parallel via a plurality of array antennas; a computing section for calculating, for elements of each of the array antennas, a set of weights that are such values as to allow each array antenna to function as an adaptive beam forming array antenna; a weight setting section for applying, in common to the array antennas, a particular set of weights which are applied to an array antenna having received an arriving wave with maximum channel quality; and a combining section for combining the arriving waves received with the array antennas to which the particular set of weights are applied.